VICINITY MAP: SITE DATA: ADDRESS: 4628 125TH AVE SE BELLEVUE, WA 98009 4478 PARCEL: 1624059318 PLAN: 2760 (L) ZONING: R-2.5 CONSTRUCTION TYPE: Y-B NORTH LINE OF THE SOUTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 16 PREPARER: 12800 RUEPPELL, INC. (253) 297-8040 CONTRACTOR: 12855 12800 TBD (555) 555-5555 GENERAL SITE NOTES TIGHTLINE ROOF RUNOFF TO STORM 25' REAR SETBACK STUB-OUT, ROUTE DRIVEWAY RUNOFF TO . "STREAM A" TYPE F,-ROAD STORM SYSTEM. AMEND ALLL 100 FOOT BUFFER DISTURBED SOILS PER SOIL AMENDMENT GUIDELINES. PROJECT LOCATION -ALL MECHANICAL UNITS SHALL COMPLY WITH THE MAXIMUM ENVIRONMENTAL NOISE LEVELS ESTABLISHED PURSUANT TO THE NOISE CONTROL ACT OF 1974, REVISED CODE OF WASHINGTON (RCW) 70.107. SEE CHAPTER 17360 WASHINGTON ADMINISTRATIVE CODE (WAC). IRC SECTION R4Ø1.3 LOTS SHALL BE GRADED TO DRAIN SURFACE WATER AWAY FROM FOUNDATION WALLS. THE GRADE SHALL FALL A MINIMUM ENTIRE PARCEL IS ENCUMBERED BY OF 6 INCHES WITHIN THE FIRST 10 FEET. STANDARD WETLAND OR STREAM EXCEPTION: WHERE LOT LINES, WALLS, BUFFERS-ENCUMBERING BUFFERS ARE NOT SLOPES OR OTHER PHYSICAL BARRIERS SHOWN WITHIN EXTENTS OF THIS PLAN. PROHIBIT 6 INCHES WITHIN 10 FEET, DRAINS OR SWALES SHALL BE CONSTRUCTED TO ENSURE DRAINAGE AWAY FROM THE STRUCTURE. IMPERVIOUS SURFACES WITHIN 10 FEET OF THE BUILDING FOUNDATION SHALL BE SLOPED A MINIMUM OF 2 PERCENT AWAY FROM THE BUILDING. TAX PARCEL \langle 'STREAM A' TYPE F,+162405-9082 SETBACKS: 100 FOOT BUFFER FRONT: 20' REAR: 25' SIDE: 5' (15' TOTAL COMBINED) MAX. BUILDING HEIGHT: 35' A.E.G. MAX. ALLOWED LOT COVERAGE: 50% MAX. ALLOWED F.A.R.: 50% WETLAND A, CATEGORY **~~~~~** AVERAGE EXISTING GRADE STORMWATER
DISPERSION TRENCH BY OTHERS **~~~~~~** B: 102.41 PROPOSED VEGETATED STORMWATER FLOWPATH C: 103.9' D: 104.8' 105.81 ····· F: 106.1' 106.1 SILT FENCE AROUND
CONSTRUCTION AT
DISTURBANCE LIMITS
(NO GREATER THAN
3000 SQ. FT. MAX.) 106.0' 586 105.21 104.4' 103.21 - TIGHTLINE TO STORM
DISPERSION
TRENCH-SLOPE DS
TIGHTLINE 2% TO
STORM SYSTEM 101.91 M: 101.3' N: 100.1' -SCOPE OF WORK-CONSTRUCT A NEW 3 STORY SINGLE FAMILY RESIDENCE 0: 100.9'

AVERAGE GRADE ELEVATION HOUSE ELEVATIONS TOTAL: 1,152.8' NUMBER OF ELEVATION DATA POINTS: 15 , AVERAGE EXISTING GRADE (AEG): 103.52'

MAX. ROOF HEIGHT ELEVATION (AEG + 30') MAX. ALLOWABLE RIDGE ELEVATION: 133.52' PROPOSED MAX. ROOF ELEVATION: 131.27' FLOOR AREA RATIO (FAR) (HOUSE + ADU) LOT AREA: 24,046.7 SQ. FT. (0.55 ACRES) FLOOR AREA THESHOLD: 50% x 24,046.7 - 12,023.4 SQ. FT.

TOTAL MAIN FLOOR AREA: 1,120 SQ. FT. TOTAL UPPER FLOOR AREA: 1,220 SQ. FT. GROSS FLOOR AREA: 3768 SQ. FT. TOTAL LOT FLOOR AREA RATIO (F.A.R.) 15.7%

IMPERVIOUS COVERAGE TOTAL ROOF AREA (INC. EAVES): 1,474 SQ. FT. EXPOPSED DRIVEWAY: 542 SQ. FT.

TOTAL LOWER FLOOR AREA: 1,428 SQ. FT.

EXPOSED STEPS, WALKWAYS: 136 SQ. FT. TOTAL IMPERVIOUS: 2,152 SQ. FT. PERCENTAGE IMPERVIOUS: 8.94% MAX. ALLOWED IMPERVIOUS: 50.0%

TREE RETENTION

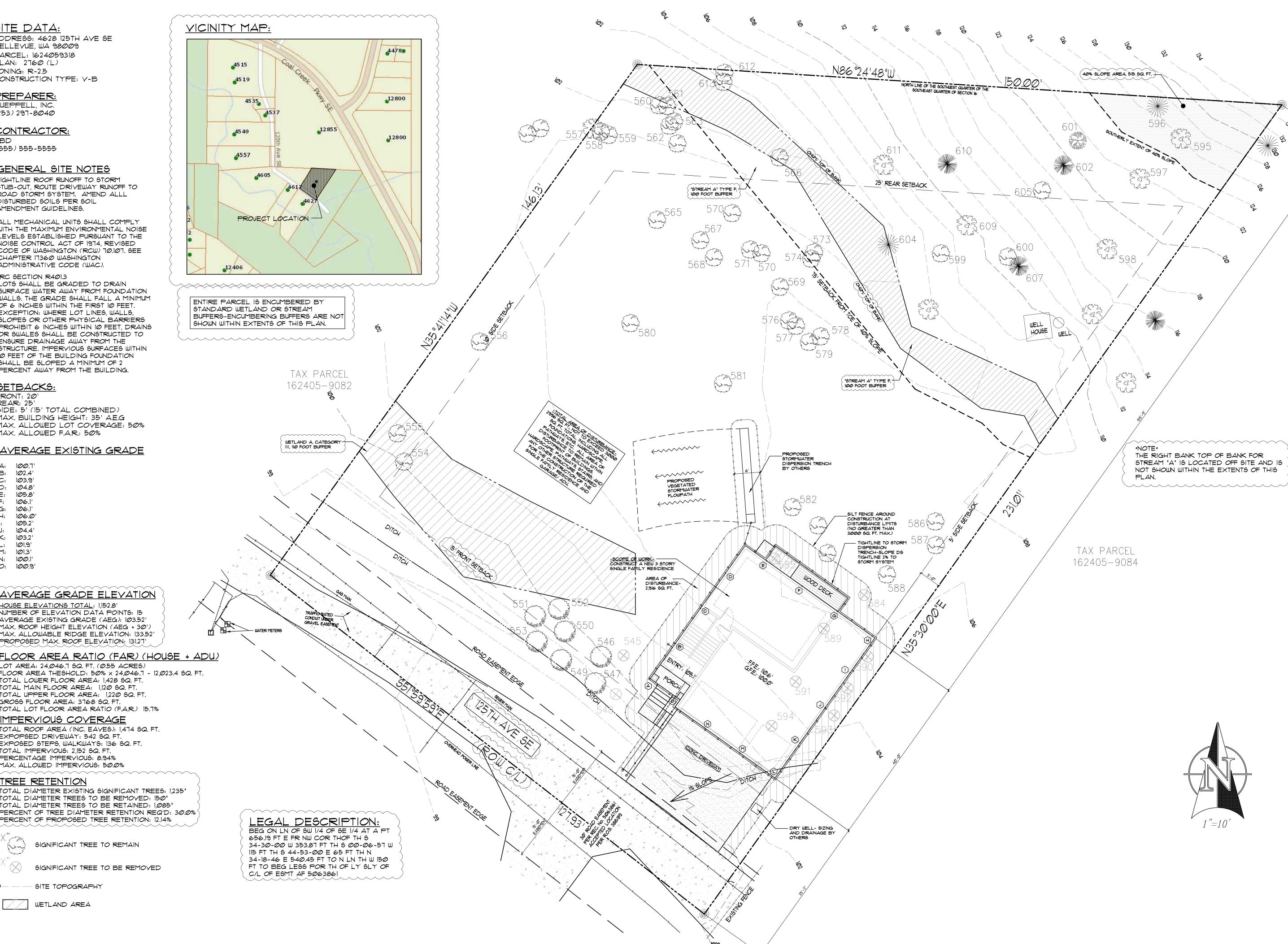
TOTAL DIAMETER EXISTING SIGNIFICANT TREES: 1,235" TOTAL DIAMETER TREES TO BE REMOVED: 150" TOTAL DIAMETER TREES TO BE RETAINED: 1,085" PERCENT OF TREE DIAMETER RETENTION REQ'D: 30.0% PERCENT OF PROPOSED TREE RETENTION: 12.14%

SIGNIFICANT TREE TO REMAIN

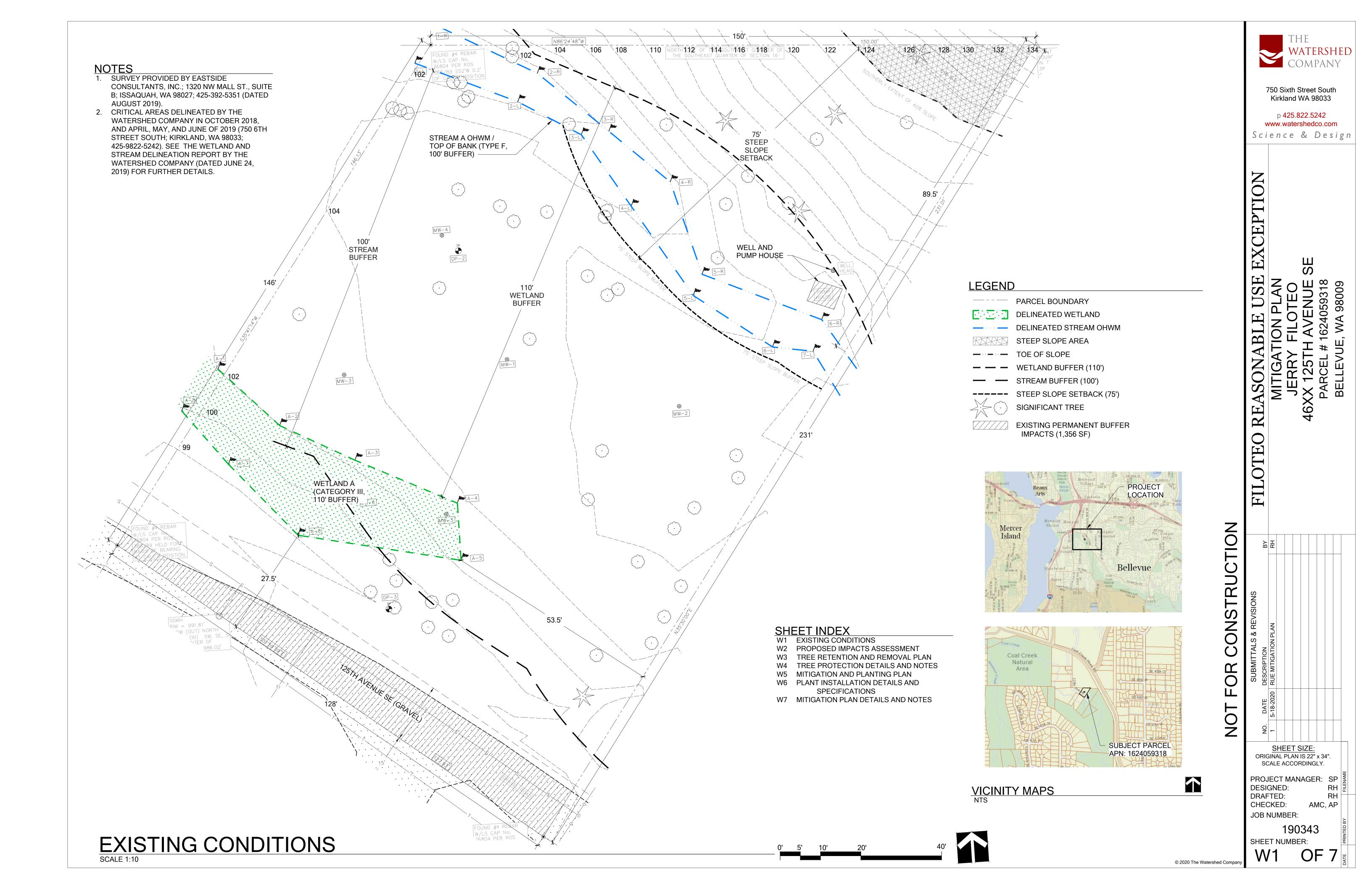
SIGNIFICANT TREE TO BE REMOVED

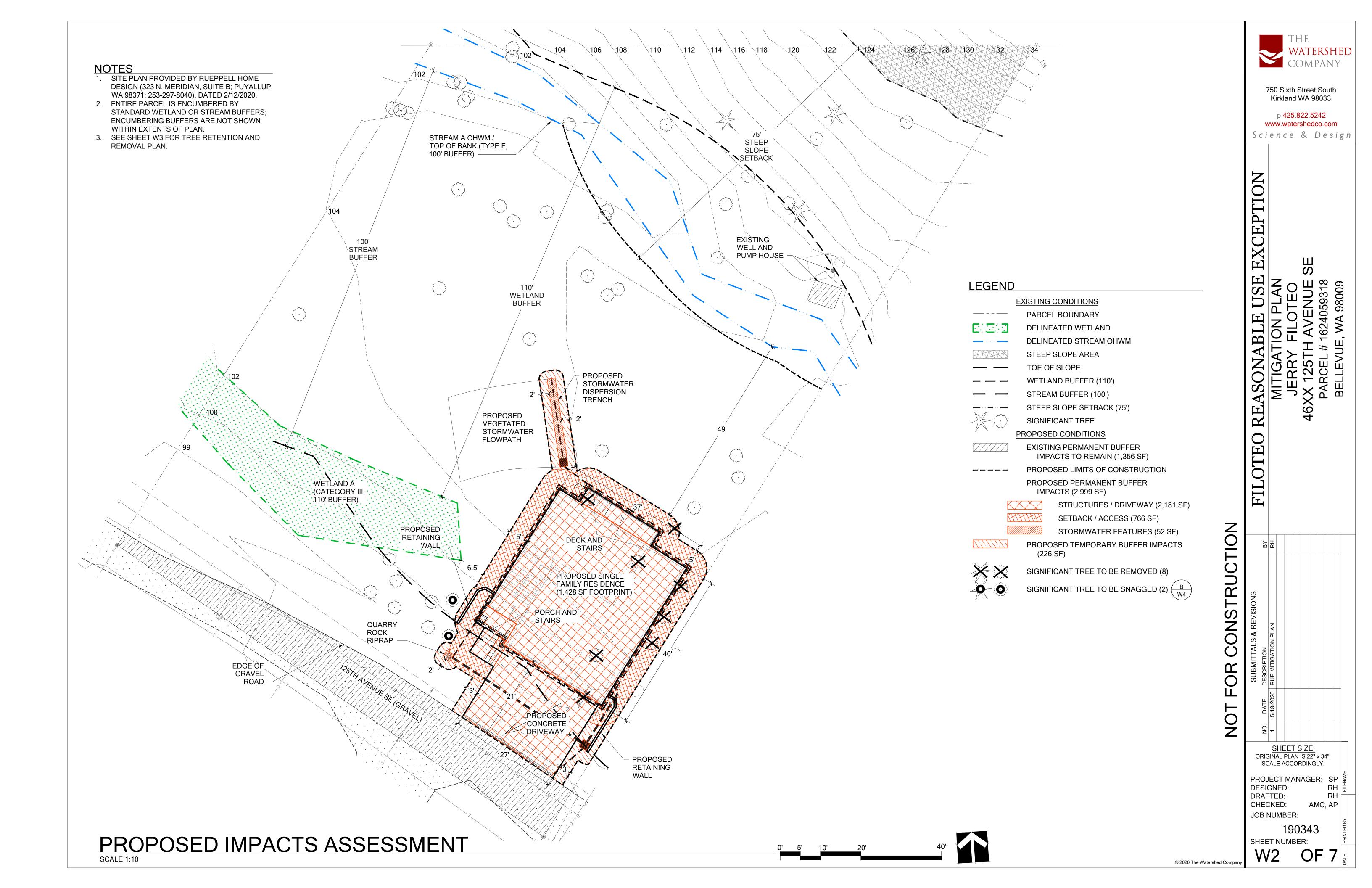
SITE TOPOGRAPHY

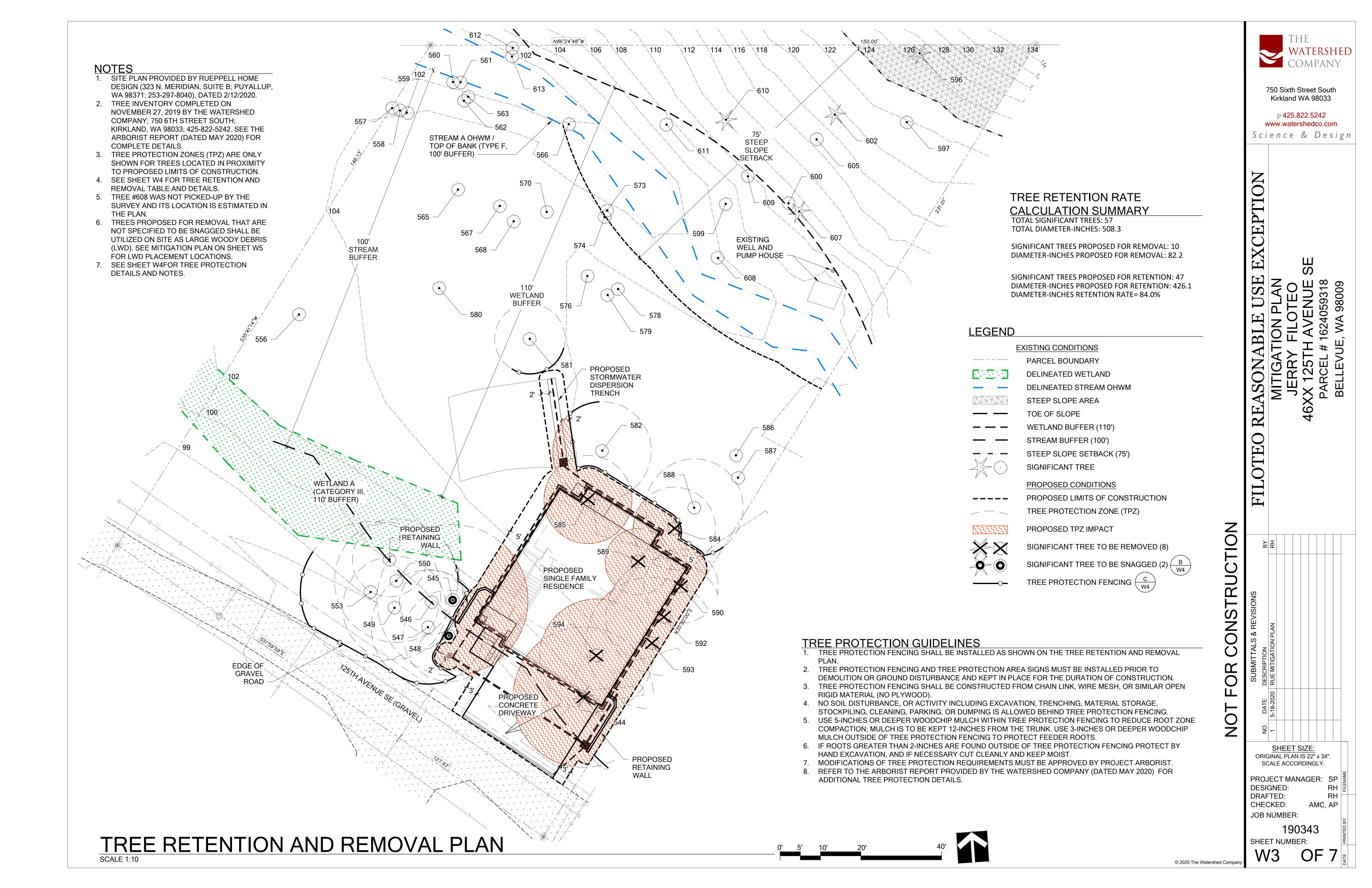
WETLAND AREA



952 Filoteo Ct 05/22/20 ion Date: Non by: EL e: (253) 29 Date: 05/ Revision I Drawn by Phone: (2







TREE RETENTION AND REMOVAL TABLE

TAG#	TREE NAME	COMBINED DBH (IN)	DIAMETER-INCHES (IN)	CRITICAL ROOT ZONE (FT)	CONDITION	CRITICAL ROOT ZONE IMPACT	PROPOSED FOR REMOVAL	DIAMETER-INCHES PROPOSED FOR RETENTION
544	Thuja plicata (Western red cedar)	17.4	17.4	17.4	Good	Yes	Yes	N/A
545	Populus balsamifera (Black cottonwood)		9.4	18.7	Good	Yes	Yes	N/A
546	Populus balsamifera (Black cottonwood)	8.0	4.0	8.0	Good	No	No	4.0
547	Populus balsamifera (Black cottonwood)	14.1	7.1	14.1	Fair	No	No	7.1
548	Populus balsamifera (Black cottonwood)	11.3	5.7	11.3	Fair	Yes	Yes	N/A
549	Populus balsamifera (Black cottonwood)	12.8	6.4	12.8	Fair	No	No	6.4
550	Populus balsamifera (Black cottonwood)	15.3	7.7	15.3	Fair	No	No	7.7
552	Populus balsamifera (Black cottonwood)	9.2	4.6	9.2	Fair	No	No	4.6
553	Populus balsamifera (Black cottonwood)		8.7	17.4	Good	No	No	8.7
556	,	8.3	4.2	8.3	Fair	No	No	4.2
557	Acer macrophyllum (Bigleaf maple)	8.0	8.0	8.0	Fair	No	No	8.0
558	Alnus rubra (Red alder)	9.9	5.0	9.9	Fair	No	No	5.0
559	Alnus rubra (Red alder)	9.9	5.0	9.9	Good	No	No	5.0
560	Alnus rubra (Red alder)	8.6	4.3	8.6	Fair	No	No	4.3
561	Alnus rubra (Red alder)	15.3	7.7	15.3	Fair	No	No	7.7
562	Alnus rubra (Red alder)	9.3	4.7	9.3	Good	No	No	4.7
563	Alnus rubra (Red alder)	8.3	4.2	8.3	Good	No	No	4.2
564	Alnus rubra (Red alder)	9.9	5.0	9.9	Fair	No	No	5.0
565	Alnus rubra (Red alder)	14.3	7.2	14.3	Fair	No	No	7.2
566	Alnus rubra (Red alder)	8.5	4.3	8.5	Fair	No	No	4.3
567	Alnus rubra (Red alder)	13.7	6.9	13.7	Fair	No	No	6.9
68	Alnus rubra (Red alder)	11.3	5.7	11.3	Fair	No	No	5.7
571	Alnus rubra (Red alder)	13.6	6.8	13.6	Good	No	No	6.8
572	Alnus rubra (Red alder)	8.6	4.3	8.6	Fair	No	No	4.3
73	Alnus rubra (Red alder)	9.9	5.0	9.9	Fair	No	No	5.0
74	Alnus rubra (Red alder)	11.2	5.6	11.2	Fair	No	No	5.6
575	Alnus rubra (Red alder)	11.0	5.5	11.0	Fair	No	No	5.5
76	Alnus rubra (Red alder)	9.4	4.7	9.4	Fair	No	No	4.7
78	Alnus rubra (Red alder)	13.4	6.7	13.4	Good	No	No	6.7
579	Alnus rubra (Red alder)	13.9	7.0	13.9	Fair	No	No	7.0
580	Alnus rubra (Red alder)	8.6	4.3	8.6	Good	No	No	4.3
581	Alnus rubra (Red alder)	8.7	4.4	8.7	Good	No	No	4.4
82	Alnus rubra (Red alder)	12.2	6.1	12.2	Good	Yes	No	6.1
583	Alnus rubra (Red alder)	9.5	4.8	9.5	Good	Yes	No	7.1
84	Alnus rubra (Red alder)	10.2	5.1	10.2	Good	Yes	Yes	N/A
585	Alnus rubra (Red alder)	10.9	5.5	10.9	Good	Yes	Yes	N/A
86	Alnus rubra (Red alder)	14.5	7.3	14.5	Good	No	No	7.3
87	Alnus rubra (Red alder)	13.3	6.7	13.3	Good	No	No	6.7
88	Alnus rubra (Red alder)	12.1	6.1	12.1	Good	Yes	No	6.1
589	Alnus rubra (Red alder)	8.2	4.1	8.2	Good	Yes	Yes	N/A
90	Alnus rubra (Red alder)	9.2	4.6	9.2	Good	Yes	Yes	N/A
92	Alnus rubra (Red alder)	14.5	7.3	14.5	Good	Yes	Yes	N/A
93	Acer macrophyllum (Bigleaf maple)	16.3	16.3	16.3	Good	Yes	Yes	N/A
94	Alnus rubra (Red alder)	14.0	7.0	14.0	Fair	Yes	Yes	N/A
96	Pseudotsuga menziesii (Douglas-fir)	19.6	19.6	19.6	Good	No	No	19.6
597	Acer macrophyllum (Bigleaf maple)	13.4	13.4	13.4	Fair	No	No	13.4
599	Acer macrophyllum (Bigleaf maple)	26.2	26.2	26.2	Fair	No	No	26.2
500	Acer macrophyllum (Bigleaf maple)	11.5	11.5	11.5	Fair	No	No	11.5
502	Thuja plicata (Western red cedar)	16.0	16.0	16.0	Good	No	No	16.0
505	Alnus rubra (Red alder)	11.6	5.8	11.6	Fair	No	No	5.8
507	Thuja plicata (Western red cedar)	22.5	22.5	22.5	Good	No	No	22.5
508	Acer macrophyllum (Bigleaf maple)	26.3	26.3	26.3	Good	No	No	26.3
509	Acer macrophyllum (Bigleaf maple)	18.0	18.0	18.0	Good	No	No	18.0
510	Thuja plicata (Western red cedar)	12.3	12.3	12.3	Excellent	No	No	12.3
511	Acer macrophyllum (Bigleaf maple)	45.8	45.8	45.8	Fair	No	No	45.8
512	Alnus rubra (Red alder)	13.7	6.9	13.7	Good	No	No	6.9
13	Alnus rubra (Red alder)	13.5	6.8	13.5	Good	No	No	6.8
			508.2					426.1

NOTES: 1. LAYOUT OF DETAIL IS CONCEPTUAL. SEE PLAN FOR LOCATION. LAYOUT IN FIELD WITH ASSISTANCE FROM THE RESTORATION PROFESSIONAL. 2. FALLEN TREE SHALL BE BURIED 1/3 THE TOTAL LOG DIAMETER. 3. SEE SPECIFICATIONS. FALLEN TREES TO BE THE RESTORATION PROFESSIONAL. KEEP **ROOTS ATTACHED** WHERE POSSIBLE. **FINISHED GRADE**

NOTES

- 1. TREE INVENTORY COMPLETED ON NOVEMBER 26, 2019 BY THE WATERSHED COMPANY; 750 6TH STREET SOUTH; KIRKLAND, WA 98033; 425-822-5242. SEE THE ARBORIST REPORT (DATED MAY 2020) FOR COMPLETE DETAILS.
- 2. SEE SHEET W3 FOR TREE RETENTION AND REMOVAL PLAN.



750 Sixth Street South Kirkland WA 98033

p 425.822.5242

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Science & Design

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ORIGINAL PLAN IS 22" x 34".

SCALE ACCORDINGLY.

PROJECT MANAGER: DRAFTED: CHECKED:

JOB NUMBER: 190343

SHEET NUMBER:

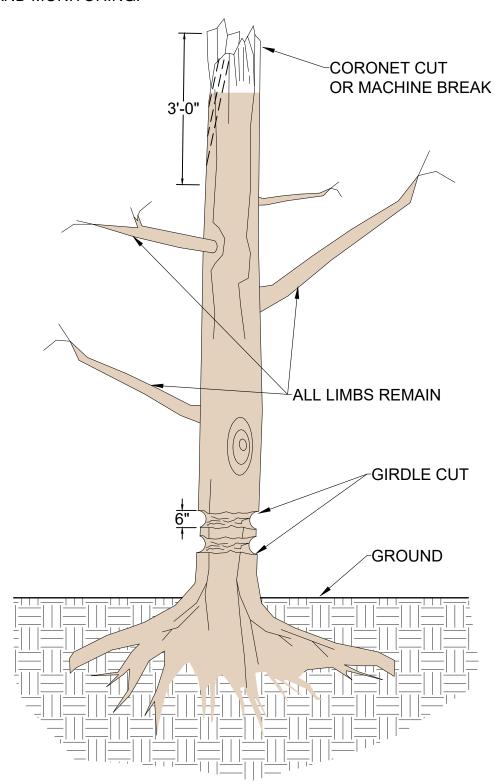
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Scale: NTS

LARGE WOODY DEBRIS PLACEMENT

SEE TREE RETENTION AND REMOVAL PLAN FOR TREES WHICH ARE TO BE RETAINED AS SNAGS.

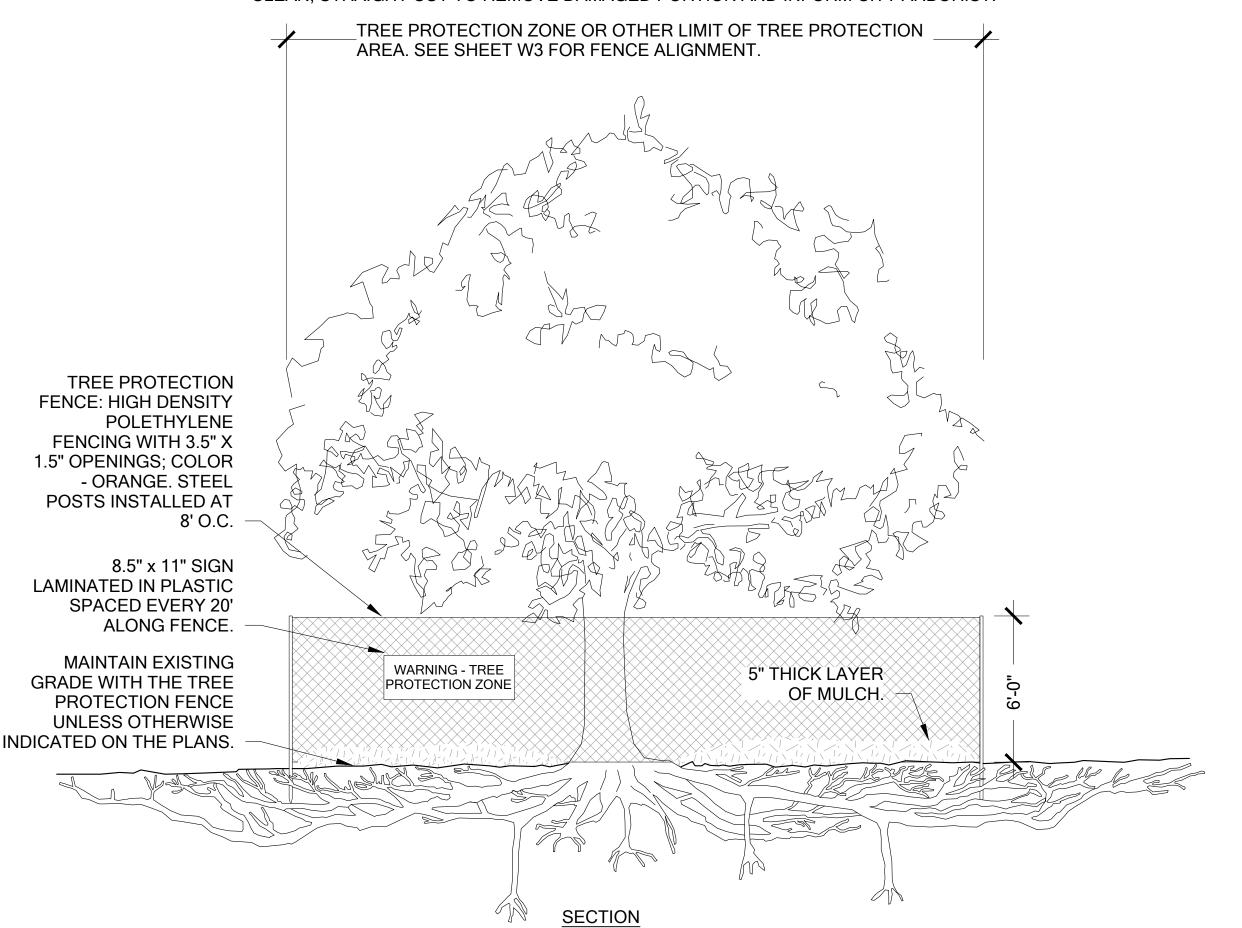
- 1. SNAGS ON SITE ARE TO BE TOPPED BY CLIMBING ARBORIST OR BROKEN
- 2. ONCE TOP HAS BEEN REMOVED ARBORIST IS TO MAKE A CORONET CUT TO GIVE A NATURAL BREAK APPEARANCE IF BROKEN BY MACHINE CORONET CUT IS NOT NECESSARY.
- 3. RETAIN ALL BRANCHES FOR PERCHES AND HABITAT STRUCTURES- DO
- 4. LIVE TREES SHOULD BE DEADENED BY CUTTING TWO 6" WIDE, ANGLED BAND AROUND THE BASE OF THE TREE WITH AN AXE OR BY MAKING TWO CUTS AROUND THE TREE WITH A CHAIN SAW TO A DEPTH OF APPROXIMATELY 1 INCH BELOW THE BARK LAYER.
- WATERSPOUTS MAY DEVELOP BELOW GIRDLING CUT DEPENDING ON SPECIES. THESE SHOULD BE REMOVED WITH ROUTINE MAINTENANCE AND MONITORING.



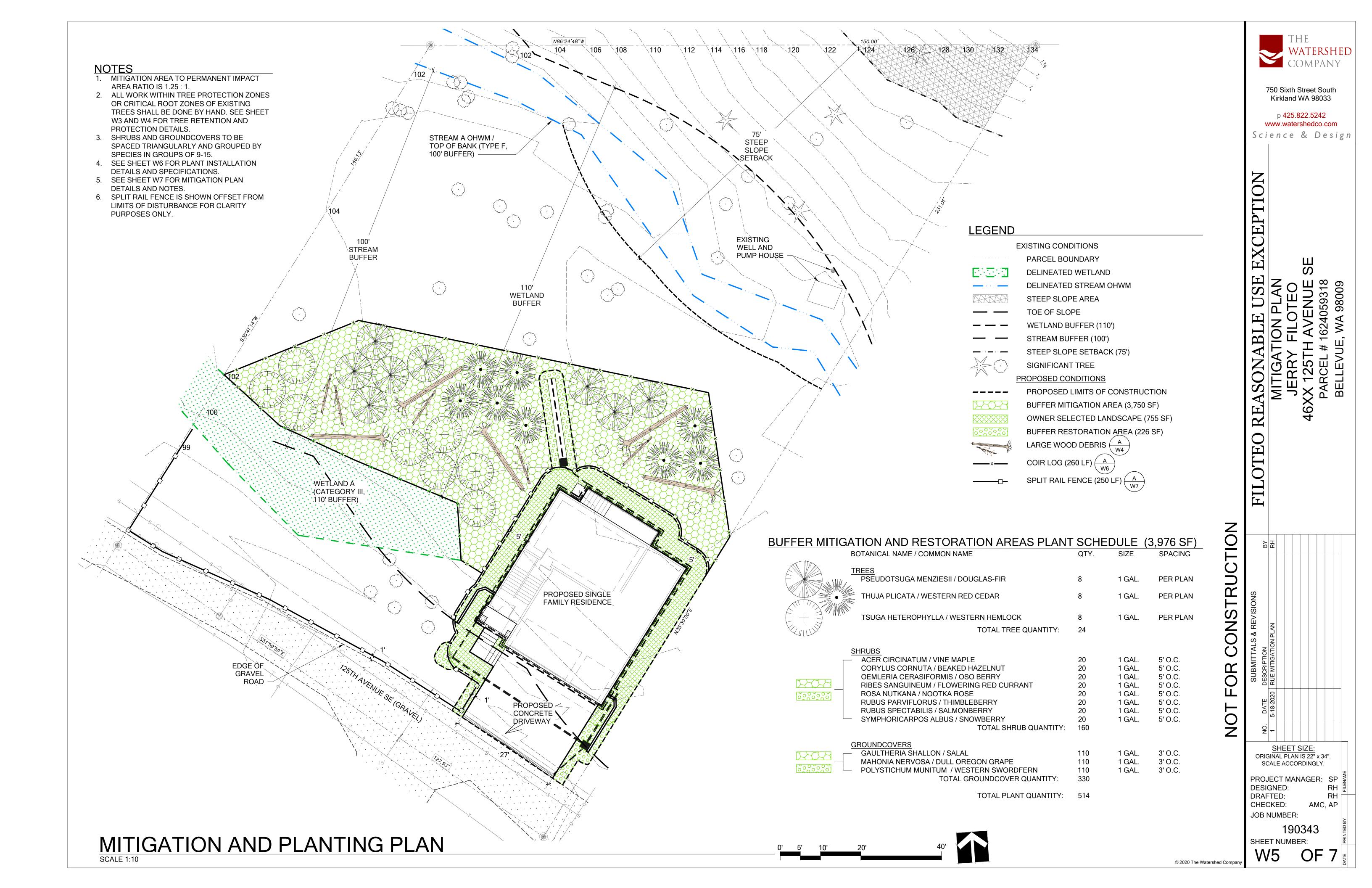
SNAG CREATION Scale: NTS

Scale: NTS

- . NO PRUNING SHALL BE PERFORMED UNLESS UNDER THE DIRECTION OF AN ARBORIST. 2. NO EQUIPMENT SHALL BE STORED OR OPERATED INSIDE THE PROTECTIVE FENCING
- INCLUDING DURING FENCE INSTALLATION AND REMOVAL.
- 3. NO STORAGE OF MATERIALS SHALL OCCUR INSIDE THE PROTECTIVE FENCING.
- 4. UNAUTHORIZED ACTIVITIES IN TREE PROTECTION AREA MAY REQUIRE EVALUATION BY PRIVATE ARBORIST TO IDENTIFY IMPACTS AND MITIGATION REQUIRED.
- 5. EXPOSED ROOTS: FOR ROOTS GREATER THAN 1" DAMAGED DURING CONSTRUCTION, MAKE A CLEAN, STRAIGHT CUT TO REMOVE DAMAGED PORTION AND INFORM CITY ARBORIST



TREE PROTECTION FENCING



PLANT INSTALLATION SPECIFICATIONS

GENERAL NOTES

QUALITY ASSURANCE

- PLANTS SHALL MEET OR EXCEED THE SPECIFICATIONS OF FEDERAL, STATE, AND LOCAL LAWS REQUIRING INSPECTION FOR PLANT DISEASE AND INSECT CONTROL
- 2. PLANTS SHALL BE HEALTHY, VIGOROUS, AND WELL-FORMED, WITH WELL DEVELOPED, FIBROUS ROOT SYSTEMS, FREE FROM DEAD BRANCHES OR ROOTS. PLANTS SHALL BE FREE FROM DAMAGE CAUSED BY TEMPERATURE EXTREMES, LACK OR EXCESS OF MOISTURE, INSECTS, DISEASE, AND MECHANICAL INJURY. PLANTS IN LEAF SHALL BE WELL FOLIATED AND OF GOOD COLOR. PLANTS SHALL BE HABITUATED TO THE OUTDOOR ENVIRONMENTAL CONDITIONS INTO WHICH THEY WILL BE PLANTED (HARDENED-OFF)
- 3. TREES WITH DAMAGED, CROOKED, MULTIPLE OR BROKEN LEADERS WILL BE REJECTED. WOODY PLANTS WITH ABRASIONS OF THE BARK OR SUN SCALD WILL BE REJECTED.
- NOMENCLATURE: PLANT NAMES SHALL CONFORM TO FLORA OF THE PACIFIC NORTHWEST BY HITCHCOCK AND CRONQUIST, UNIVERSITY OF WASHINGTON PRESS, 1973 AND/OR TO A FIELD GUIDE TO THE COMMON WETLAND PLANTS OF WESTERN WASHINGTON & NORTHWESTERN OREGON, ED. SARAH SPEAR COOKE, SEATTLE **AUDUBON SOCIETY, 1997.**

DEFINITIONS

- 1. PLANTS/PLANT MATERIALS. PLANTS AND PLANT MATERIALS SHALL INCLUDE ANY LIVE PLANT MATERIAL USED ON THE PROJECT. THIS INCLUDES BUT IS NOT LIMITED TO CONTAINER GROWN, B&B OR BAREROOT PLANTS; LIVE STAKES AND FASCINES (WATTLES); TUBERS, CORMS, BULBS, ETC..; SPRIGS, PLUGS, AND LINERS.
- 2. CONTAINER GROWN. CONTAINER GROWN PLANTS ARE THOSE WHOSE ROOTBALLS ARE ENCLOSED IN A POT OR BAG IN WHICH THAT PLANT GREW.

SUBSTITUTIONS

- IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN SPECIFIED MATERIALS IN ADVANCE IF SPECIAL GROWING, MARKETING OR OTHER ARRANGEMENTS MUST BE MADE IN ORDER TO SUPPLY SPECIFIED MATERIALS
- 2. SUBSTITUTION OF PLANT MATERIALS NOT ON THE PROJECT LIST WILL NOT BE PERMITTED UNLESS AUTHORIZED IN WRITING BY THE RESTORATION CONSULTANT.
- IF PROOF IS SUBMITTED THAT ANY PLANT MATERIAL SPECIFIED IS NOT OBTAINABLE, A PROPOSAL WILL BE CONSIDERED FOR USE OF THE NEAREST EQUIVALENT SIZE OR ALTERNATIVE SPECIES, WITH CORRESPONDING ADJUSTMENT OF CONTRACT PRICE
- 4. SUCH PROOF WILL BE SUBSTANTIATED AND SUBMITTED IN WRITING TO THE CONSULTANT AT LEAST 30 DAYS PRIOR TO START OF WORK UNDER THIS SECTION

- PLANTS SHALL BE SUBJECT TO INSPECTION AND APPROVAL BY THE RESTORATION CONSULTANT FOR CONFORMANCE TO SPECIFICATIONS, EITHER AT TIME OF DELIVERY ON-SITE OR AT THE GROWER'S NURSERY. APPROVAL OF PLANT MATERIALS AT ANY TIME SHALL NOT IMPAIR THE SUBSEQUENT RIGHT OF INSPECTION AND REJECTION DURING PROGRESS OF THE WORK.
- PLANTS INSPECTED ON SITE AND REJECTED FOR NOT MEETING SPECIFICATIONS MUST BE REMOVED IMMEDIATELY FROM SITE OR RED-TAGGED AND REMOVED AS SOON AS
- THE RESTORATION CONSULTANT MAY ELECT TO INSPECT PLANT MATERIALS AT THE PLACE OF GROWTH. AFTER INSPECTION AND ACCEPTANCE, THE RESTORATION CONSULTANT MAY REQUIRE THE INSPECTED PLANTS BE LABELED AND RESERVED FOR PROJECT. SUBSTITUTION OF THESE PLANTS WITH OTHER INDIVIDUALS, EVEN OF THE SAME SPECIES AND SIZE, IS UNACCEPTABLE.

MEASUREMENT OF PLANTS

- PLANTS SHALL CONFORM TO SIZES SPECIFIED UNLESS SUBSTITUTIONS ARE MADE AS OUTLINED IN THIS CONTRACT.
- 2. HEIGHT AND SPREAD DIMENSIONS SPECIFIED REFER TO MAIN BODY OF PLANT AND NOT BRANCH OR ROOT TIP TO TIP. PLANT DIMENSIONS SHALL BE MEASURED WHEN THEIR BRANCHES OR ROOTS ARE IN THEIR NORMAL POSITION.
- 3. WHERE A RANGE OF SIZE IS GIVEN. NO PLANT SHALL BE LESS THAN THE MINIMUM SIZE AND AT LEAST 50% OF THE PLANTS SHALL BE AS LARGE AS THE MEDIAN OF THE SIZE RANGE. (EXAMPLE: IF THE SIZE RANGE IS 12" TO 18", AT LEAST 50% OF PLANTS MUST BE 15" TALL.).

SUBMITTALS

PROPOSED PLANT SOURCES

1. WITHIN 45 DAYS AFTER AWARD OF THE CONTRACT, SUBMIT A COMPLETE LIST OF PLANT MATERIALS PROPOSED TO BE PROVIDED DEMONSTRATING CONFORMANCE WITH THE REQUIREMENTS SPECIFIED. INCLUDE THE NAMES AND ADDRESSES OF ALL GROWERS AND NURSERIES.

PRODUCT CERTIFICATES

- PLANT MATERIALS LIST SUBMIT DOCUMENTATION TO CONSULTANT AT LEAST 30 DAYS PRIOR TO START OF WORK UNDER THIS SECTION THAT PLANT MATERIALS HAVE BEEN ORDERED. ARRANGE PROCEDURE FOR INSPECTION OF PLANT MATERIAL WITH CONSULTANT AT TIME OF SUBMISSION.
- 2. HAVE COPIES OF VENDOR'S OR GROWERS' INVOICES OR PACKING SLIPS FOR ALL PLANTS ON SITE DURING INSTALLATION. INVOICE OR PACKING SLIP SHOULD LIST SPECIES BY SCIENTIFIC NAME, QUANTITY, AND DATE DELIVERED (AND GENETIC ORIGIN IF THAT INFORMATION WAS PREVIOUSLY REQUESTED).

DELIVERY, HANDLING, & STORAGE

NOTIFICATION

CONTRACTOR MUST NOTIFY CONSULTANT 48 HOURS OR MORE IN ADVANCE OF DELIVERIES SO THAT CONSULTANT MAY ARRANGE FOR INSPECTION.

PLANT MATERIALS

- 1. TRANSPORTATION DURING SHIPPING, PLANTS SHALL BE PACKED TO PROVIDE PROTECTION AGAINST CLIMATE EXTREMES, BREAKAGE AND DRYING. PROPER VENTILATION AND PREVENTION OF DAMAGE TO BARK, BRANCHES, AND ROOT SYSTEMS MUST BE ENSURED.
- 2. SCHEDULING AND STORAGE PLANTS SHALL BE DELIVERED AS CLOSE TO PLANTING AS POSSIBLE. PLANTS IN STORAGE MUST BE PROTECTED AGAINST ANY CONDITION THAT IS DETRIMENTAL TO THEIR CONTINUED HEALTH AND VIGOR.
- HANDLING PLANT MATERIALS SHALL NOT BE HANDLED BY THE TRUNK, LIMBS, OR FOLIAGE BUT ONLY BY THE CONTAINER, BALL, BOX, OR OTHER PROTECTIVE STRUCTURE, EXCEPT BAREROOT PLANTS SHALL BE KEPT IN BUNDLES UNTIL PLANTING AND THEN HANDLED CAREFULLY BY THE TRUNK OR STEM.
- LABELS PLANTS SHALL HAVE DURABLE, LEGIBLE LABELS STATING CORRECT SCIENTIFIC NAME AND SIZE. TEN PERCENT OF CONTAINER GROWN PLANTS IN INDIVIDUAL POTS SHALL BE LABELED. PLANTS SUPPLIED IN FLATS, RACKS, BOXES, BAGS, OR BUNDLES SHALL HAVE ONE LABEL PER GROUP.

WARRANTY

PLANTS MUST BE GUARANTEED TO BE TRUE TO SCIENTIFIC NAME AND SPECIFIED SIZE, AND TO BE HEALTHY AND CAPABLE OF VIGOROUS GROWTH.

REPLACEMENT

- 1. PLANTS NOT FOUND MEETING ALL OF THE REQUIRED CONDITIONS AT THE CONSULTANT'S DISCRETION MUST BE REMOVED FROM SITE AND REPLACED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
- 2. PLANTS NOT SURVIVING AFTER ONE YEAR TO BE REPLACED AT THE CONTRACTOR'S EXPENSE.

PLANT MATERIAL

- 1. PLANTS SHALL BE NURSERY GROWN IN ACCORDANCE WITH GOOD HORTICULTURAL PRACTICES UNDER CLIMATIC CONDITIONS SIMILAR TO OR MORE SEVERE THAN THOSE OF THE PROJECT SITE.
- 2. PLANTS SHALL BE TRUE TO SPECIES AND VARIETY OR SUBSPECIES. NO CULTIVARS OR NAMED VARIETIES SHALL BE USED UNLESS SPECIFIED AS SUCH.

SEE PLANT LIST ON ACCOMPANYING PLANS AND PLANT SCHEDULES.

ROOT TREATMENT

- 1. CONTAINER GROWN PLANTS (INCLUDES PLUGS): PLANT ROOT BALLS MUST HOLD TOGETHER WHEN THE PLANT IS REMOVED FROM THE POT, EXCEPT THAT A SMALL AMOUNT OF LOOSE SOIL MAY BE ON THE TOP OF THE ROOTBALL
- 2. PLANTS MUST NOT BE ROOT-BOUND; THERE MUST BE NO CIRCLING ROOTS PRESENT IN ANY PLANT INSPECTED.
- ROOTBALLS THAT HAVE CRACKED OR BROKEN WHEN REMOVED FROM THE CONTAINER SHALL BE REJECTED.

NOTE: INSTALL COIR LOGS PARALLEL TO SLOPE CONTOUR PER SURFACE WATER DESIGN MANUAL - APPENDIX D (D.2.1.2.5)

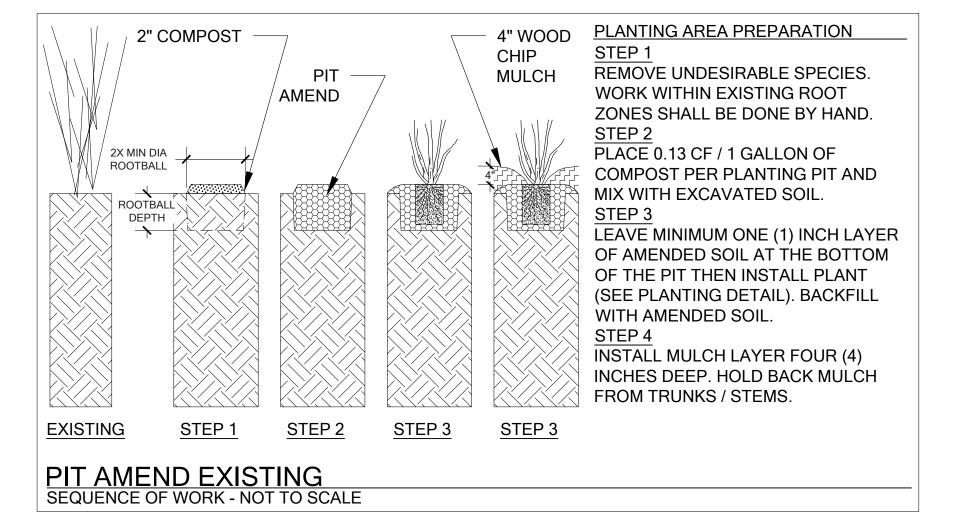
UNTREATED $\frac{3}{4}$ " X $\frac{3}{4}$ " X 24" WOOD STAKE ACCUMULATED SEDIMENT, ORGANIC MATTER, NATIVE SEEDS, ETC. **EROSION CONTROL COIR FIBER LOGS** (BIODEGRADEABLE) STAKE THROUGH CENTER OF COIR LOG

ENTRENCH COIR LOG 5-7 INCHES

OR 1/2 - 2/3 INTO SUBGRADE

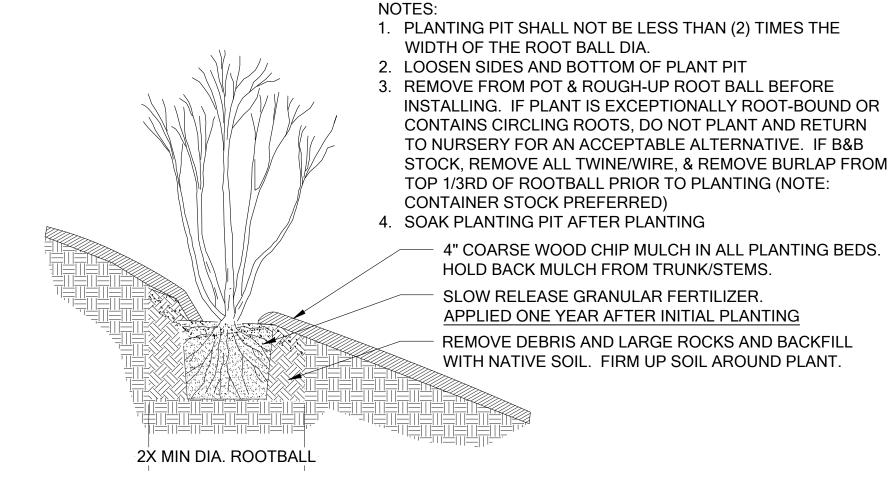
COIR LOG

Scale: NTS



SITE PREPARATION - MITIGATION AND RESTORATION AREAS

Scale: NTS



CONTAINER PLANTING

Scale: NTS

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750 Sixth Street South

Kirkland WA 98033

p 425.822.5242

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Science & Design

SHEET SIZE ORIGINAL PLAN IS 22" x 34". SCALE ACCORDINGLY. PROJECT MANAGER: SP DESIGNED: RH

PLANT INSTALLATION DETAILS AND SPECIFICATIONS

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Z 0 O^{\prime}

DRAFTED: CHECKED: AMC, AP JOB NUMBER:

190343 SHEET NUMBER:

MITIGATION PLAN NOTES

MITIGATION PLAN

THIS PLAN HAS BEEN PREPARED AS MITIGATION FOR IMPACTS TO ON-SITE CRITICAL AREA BUFFERS. THE PROPERTY IS ENTIRELY ENCUMBERED BY STREAM AND WETLAND BUFFERS. PERMANENT AND TEMPORARY BUFFER IMPACTS WILL OCCUR WITH THE CONSTRUCTION OF A SINGLE FAMILY RESIDENCE, TO BE PERMITTED THROUGH THE REASONABLE USE EXCEPTION PROCESS. THE MITIGATION PLAN SEEKS TO ENHANCE A SUBSTANTIAL PORTION OF ON-SITE STREAM AND WETLAND BUFFERS. AREAS SUBJECT TO THE PROVISIONS OF THIS MITIGATION PLAN ARE VEGETATED WITH A YOUNG STAND OF RED ALDER AND AN UNDERSTORY OF WEEDY NATIVE AND INVASIVE SPECIES INCLUDING HIMALAYAN BLACKBERRY AND GIANT HORSETAIL.

TO OFFSET PROJECT IMPACTS, THE PLAN CALLS FOR THE ENHANCEMENT OF 3,976 SQUARE FEET OF THE STREAM AND WETLAND BUFFER THROUGH THE PLANTING OF NATIVE TREES, SHRUBS AND GROUNDCOVER. TREE SPECIES PROPOSED INCLUDE DOUGLAS-FIR, WESTERN RED CEDAR, AND WESTERN HEMLOCK. SHRUBS INCLUDE VINE MAPLE, BEAKED HAZELNUT, OSOBERRY, RED FLOWERING CURRANT, NOOTKA ROSE, THIMBLEBERRY, SALMONBERRY, AND SNOWBERRY. PROPOSED GROUNDCOVERS INCLUDE SALAL, DULL OREGON GRAPE, AND WESTERN SWORDFERN. A TOTAL OF 24 TREES, 160 SHRUBS, AND 330 GROUNDCOVER PLANTS COMPRISING THESE SPECIES WILL BE INSTALLED.

MAINTENANCE AND MONITORING PLAN

THE SITE SHALL BE MAINTAINED AND MONITORED FOR FIVE YEARS FOLLOWING SUCCESSFUL INSTALLATION. COMPONENTS OF THE 5-YEAR MAINTENANCE AND MONITORING PLAN ARE DETAILED BELOW.

GOALS

- 1. ESTABLISH DENSE NATIVE VEGETATION THAT IS APPROPRIATE TO THE ECO-REGION AND SITE
- 2. LIMIT INVASIVE AND/OR NOXIOUS WEED COVER ON-SITE.
- 3. INCREASE HABITAT COVER AND REFUGE FOR URBAN WILDLIFE SPECIES. PROVIDE PERCHING, NESTING AND FORAGING HABITAT FOR NATIVE BIRDS.

PERFORMANCE STANDARDS

THE STANDARDS LISTED BELOW WILL BE USED TO JUDGE THE SUCCESS OF THE INSTALLATION OVER TIME. IF PERFORMANCE STANDARDS ARE MET AT THE END OF YEAR 5, THE SITE WILL THEN BE DEEMED SUCCESSFUL AND THE PERFORMANCE SECURITY BOND WILL BE ELIGIBLE FOR RELEASE BY THE CITY OF BELLEVUE.

- 1. SURVIVAL: THIS STANDARD CAN BE MET THROUGH PLANT ESTABLISHMENT OR THROUGH REPLANTING IN THE FOLLOWING DORMANT SEASON AS NECESSARY TO ACHIEVE THE REQUIRED NUMBERS.
- A. ACHIEVE 100% SURVIVAL OF ALL INSTALLED PLANTS BY THE END OF YEAR 1 (FROM DATE OF PLANT INSTALLATION).
- B. ACHIEVE 90% SURVIVAL OF ALL INSTALLED PLANTS BY THE END OF YEAR 2 (FROM DATE OF PLANT INSTALLATION).
- C. ACHIEVE 85% SURVIVAL OF ALL INSTALLED PLANTS BY THE END OF YEAR 3, 4, AND 5 (FROM DATE OF PLANT INSTALLATION).

2. NATIVE PLANT COVER:

- A. ACHIEVE 40% UNDERSTORY COVER OF NATIVE SAPLING TREES, SHRUBS AND GROUNDCOVER BY YEAR 2. NATIVE VOLUNTEER SPECIES MAY COUNT TOWARDS THIS COVER STANDARD.
- B. ACHIEVE 60% UNDERSTORY COVER OF NATIVE SAPLING TREES, SHRUBS AND GROUNDCOVER BY YEAR 3. NATIVE VOLUNTEER SPECIES MAY COUNT TOWARDS THIS COVER STANDARD.
- C. ACHIEVE 80% UNDERSTORY COVER OF NATIVE SAPLING TREES, SHRUBS AND GROUNDCOVER BY YEAR 5. NATIVE VOLUNTEER SPECIES MAY COUNT TOWARDS THIS COVER STANDARD.
- 3. SPECIES DIVERSITY: ESTABLISH AT LEAST TWO NATIVE TREE, SIX NATIVE SHRUB, AND TWO NATIVE GROUNDCOVER SPECIES BY YEAR 3 AND MAINTAIN THIS DIVERSITY THROUGH YEAR 5. NATIVE VOLUNTEER SPECIES MAY COUNT TOWARDS THIS STANDARD.
- 4. INVASIVE COVER: AREAL COVER FOR ALL NON-NATIVE, INVASIVE AND NOXIOUS WEEDS WILL NOT EXCEED 10% AT ANY YEAR DURING THE MONITORING PERIOD. INVASIVE PLANTS INCLUDE BUT ARE NOT LIMITED TO HIMALAYAN BLACKBERRY (RUBUS ARMENIACUS), CUT LEAF BLACKBERRY (RUBUS LACINIATUS), KNOTWEEDS (POLYGONUM CUSPIDATUM AND OTHERS), REED CANARYGRASS (PHALARIS ARUNDINACEA), CHERRY LAUREL (PRUNUS LAUROCERASUS), ENGLISH HOLLY (ILEX AQUIFOLIUM), AND IVY SPECIES (HEDERA SPP.).

MONITORING METHODS

THIS MONITORING PROGRAM IS DESIGNED TO TRACK THE SUCCESS OF THE MITIGATION SITE OVER TIME AND TO MEASURE THE DEGREE TO WHICH THE SITE IS MEETING THE PERFORMANCE STANDARDS OUTLINED IN THE PRECEDING SECTION.

AN AS-BUILT PLAN WILL BE PREPARED BY THE RESTORATION PROFESSIONAL PRIOR TO THE BEGINNING OF THE MONITORING PERIOD. THE AS-BUILT PLAN WILL BE A MARK-UP OF THE PLANTING PLANS INCLUDED IN THIS PLAN SET. THE AS-BUILT PLAN WILL DOCUMENT ANY DEPARTURES IN PLANT PLACEMENT OR OTHER COMPONENTS FROM THE PROPOSED PLAN.

MONITORING WILL TAKE PLACE ONCE ANNUALLY IN THE FALL FOR FIVE YEARS. YEAR-1 MONITORING WILL COMMENCE IN THE FIRST FALL SUBSEQUENT TO INSTALLATION.

THE FORMAL MONITORING VISIT SHALL RECORD AND REPORT THE FOLLOWING IN AN ANNUAL REPORT SUBMITTED TO THE CITY OF BELLEVUE:

1. VISUAL ASSESSMENT OF THE OVERALL MITIGATION AREA.

- 2. YEAR-1 COUNTS OF LIVE AND DEAD PLANTS BY SPECIES. YEAR-2 THROUGH YEAR-5 COUNTS OF ESTABLISHED NATIVE TREES AND SHRUBS BY SPECIES, TO THE EXTENT FEASIBLE.
- 3. COUNTS OF DEAD PLANTS WHERE MORTALITY IS SIGNIFICANT IN ANY MONITORING YEAR.
- 4. ESTIMATE OF NATIVE COVER IN THE MITIGATION AREA.
- 5. ESTIMATE OF NON-NATIVE, INVASIVE WEED COVER IN THE MITIGATION AREA.
- 6. TABULATION OF ESTABLISHED NATIVE SPECIES, INCLUDING BOTH PLANTED AND VOLUNTEER SPECIES.
- 7. PHOTOGRAPHIC DOCUMENTATION FROM AT LEAST THREE FIXED REFERENCE POINTS.
- 8. ANY INTRUSIONS INTO OR CLEARING OF THE PLANTING AREAS, VANDALISM, OR OTHER ACTIONS THAT IMPAIR THE INTENDED FUNCTIONS OF THE MITIGATION AREA.
- 9. RECOMMENDATIONS FOR MAINTENANCE OR REPAIR OF ANY PORTION OF THE MITIGATION AREA

MAINTENANCE

THE SITE WILL BE MAINTAINED IN ACCORDANCE WITH THE FOLLOWING INSTRUCTIONS FOR AT LEAST FIVE YEARS FOLLOWING COMPLETION OF CONSTRUCTION:

- 1. FOLLOW THE RECOMMENDATIONS NOTED IN THE PREVIOUS MONITORING SITE VISIT.
- 2. GENERAL WEEDING FOR ALL PLANTED AREAS:
- A. AT LEAST TWICE YEARLY, REMOVE ALL COMPETING WEEDS AND WEED ROOTS FROM BENEATH EACH INSTALLED PLANT AND ANY DESIRABLE VOLUNTEER VEGETATION TO A DISTANCE OF 18 INCHES FROM THE MAIN PLANT STEM. WEEDING SHOULD OCCUR AT LEAST TWICE DURING THE SPRING AND SUMMER. FREQUENT WEEDING WILL RESULT IN LOWER MORTALITY, LOWER PLANT REPLACEMENT COSTS, AND INCREASED LIKELIHOOD THAT THE PLAN MEETS PERFORMANCE STANDARDS BY YEAR 5.
- B. MORE FREQUENT WEEDING MAY BE NECESSARY DEPENDING ON WEED CONDITIONS THAT DEVELOP AFTER PLAN INSTALLATION.
- C. DO NOT WEED THE AREA NEAR THE PLANT BASES WITH STRING TRIMMER (WEED WHACKER/WEED EATER). NATIVE PLANTS ARE EASILY DAMAGED OR KILLED, AND WEEDS EASILY RECOVER AFTER TRIMMING.
- D. SELECTIVE APPLICATIONS OF HERBICIDE MAY BE NEEDED TO CONTROL INVASIVE WEEDS ESPECIALLY WHEN INTERMIXED WITH NATIVE SPECIES. HERBICIDE APPLICATION, WHEN NECESSARY, SHALL BE CONDUCTED ONLY BY A STATE-LICENSED APPLICATOR.
- 3. APPLY SLOW-RELEASE, GRANULAR FERTILIZER TO EACH INSTALLED PLANT ANNUALLY IN THE SPRING (BY JUNE 1) OF YEARS 2 THROUGH 5.
- 4. REPLACE MULCH AS NECESSARY TO MAINTAIN A 4-INCH-THICK LAYER, RETAIN SOIL MOISTURE, AND LIMIT WEEDS
- 5. REPLACE EACH PLANT FOUND DEAD IN THE SUMMER MONITORING VISITS DURING THE UPCOMING DORMANT SEASON (OCTOBER 15 TO MARCH 1), FOR BEST SURVIVAL.
- 6. THE PROPERTY OWNER WILL ENSURE THAT WATER IS PROVIDED FOR THE ENTIRE PLANTED AREA WITH A MINIMUM OF 1 INCH OF WATER PER WEEK FROM JUNE 1 THROUGH SEPTEMBER 30 FOR THE FIRST TWO YEARS FOLLOWING INSTALLATION, THROUGH THE OPERATION OF A TEMPORARY IRRIGATION SYSTEM. LESS WATER IS NEEDED DURING MARCH, APRIL, MAY AND OCTOBER.

CONSTRUCTION NOTES AND SPECIFICATION:

THE RESTORATION PROFESSIONAL WILL MONITOR:

- 1. ALL SITE PREPARATION.
- A. COIR LOG/STRAW WATTLE INSTALLATION.
- B. WEED REMOVAL.
- C. SOIL PREPARATION.
- D. MULCH PLACEMENT.
- 2. MITIGATION PLANTING ACTIVITES.
- A. PLANT MATERIAL DELIVERY INSPECTION.
- B. 100% PLANT INSTALLATION INSPECTION.

GENERAL WORK SEQUENCE

SITE PREPARATION

- 1. INSTALL COIR LOG OR STRAW WATTLE PER PLANS.
- 2. MANUALLY CLEAR INVASIVE AND ORNAMENTAL VEGETATION FROM MITIGATION AREA DURING SPRING AND/OR SUMMER MONTHS (I.E., AVOID CREATING EXPOSED SOIL CONDITIONS DURING THE WINTER STORM SEASON).
- A. REMOVE INVASIVE SPECIES (I.E., HIMALAYAN BLACKBERRY, ENGLISH IVY), IN ACCORDANCE WITH KING COUNTY NOXIOUS WEED BEST MANAGEMENT PRACTICES. FOR MORE INFORMATION:
- NOXIOUS-WEEDS.ASPX.

 B. CUT UNDESIRABLE VEGETATION. LEAVE ROOTS INTACT TO MINIMIZE POTENTIAL IMPACTS TO SLOPES ON ADJACENT PROPERTIES.

HTTPS://WWW.KINGCOUNTY.GOV/SERVICES/ENVIRONMENT/ANIMALS-AND-PLANTS/

C. FLUSH-CUT ORNAMENTAL WOODY VEGETATION (E.G. ENGLISH HOLLY, NON-NATIVE APPLE OR PLUM) THROUGHOUT MITIGATION AREA AND IMMEDIATELY TREAT STEM (DAUBING OR PAINTING) WITH APPROPRIATE HERBICIDE. PERSON APPLYING HERBICIDE SHALL BE STATE-LICENSED. DO NOT REMOVE SUBSURFACE ROOTS.

- D. AVOID AND MINIMIZE DISTURBANCE AND/OR COMPACTION TO ROOTS OF ESTABLISHED NATIVE TREES TO BE RETAINED WHEN REMOVING VEGETATION FROM WITHIN TREE DRIPLINES.
- 3. BLANKET-MULCH CLEARED AREAS WITH WOOD MULCH, FOUR INCHES THICK.
- A. ENSURE MULCH DOES NOT TOUCH STEMS OF EXISTING (OR INSTALLED) VEGETATION. SEE PLANTING DETAIL ON SHEET W5.

MITIGATION PLANTING AND IRRIGATION

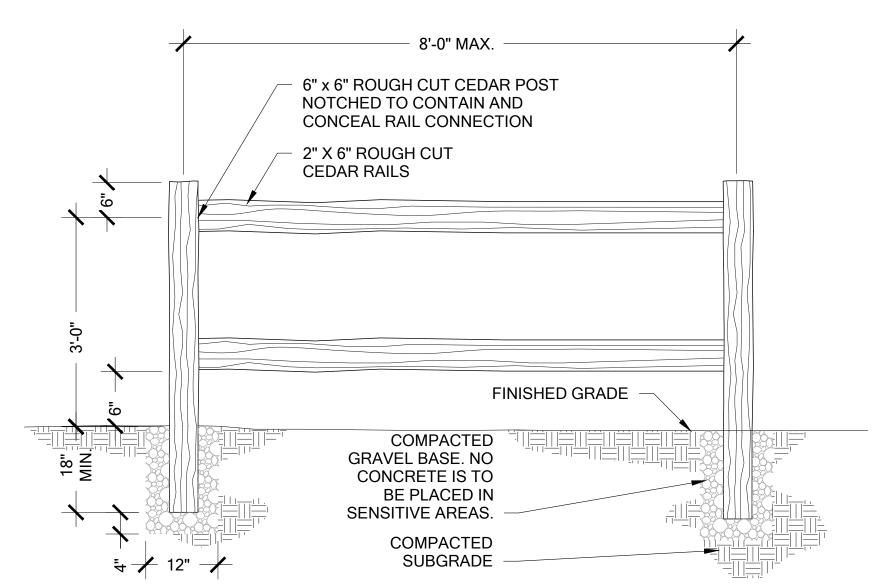
- INSTALL MITIGATION PLANTS DURING THE DORMANT SEASON (OCTOBER 15 MARCH 1).
 A. PREPARE A PLANTING PIT FOR EACH PLANT THROUGH BLANKET WOOD MULCH AND INSTALL PER THE PLANTING DETAILS.
- INSTALL A TEMPORARY, ABOVE GROUND IRRIGATION SYSTEM TO PROVIDE FULL COVERAGE TO ALL INSTALLED PLANTS WITHIN THE RESTORATION AREA.

MATERIAL SPECIFICATIONS AND DEFINITIONS

- FERTILIZER (FOR NEAR AQUATIC ENVIRONMENTS): SLOW-RELEASE, PHOSPHOROUS-FREE GRANULAR FERTILIZER. LABEL MUST INDICATE THAT PRODUCT IS SAFE FOR AQUATIC ENVIRONMENTS. FOLLOW MANUFACTURER'S INSTRUCTIONS FOR USE. KEEP FERTILIZER IN WEATHER-TIGHT CONTAINER WHILE ON-SITE. FERTILIZER IS ONLY TO BE APPLIED IN YEARS 2 AND 3, NOT IN YEAR ONE.
- 2. IRRIGATION SYSTEM: AUTOMATED SYSTEM CAPABLE OF DELIVERING AT LEAST ONE INCH OF WATER PER WEEK FROM JUNE 1 THROUGH SEPTEMBER 30 FOR THE FIRST TWO YEARS FOLLOWING INSTALLATION.
- 3. RESTORATION PROFESSIONAL: WATERSHED COMPANY [(425) 822-5242] PERSONNEL, OR OTHER PERSONS QUALIFIED TO EVALUATE ENVIRONMENTAL RESTORATION PROJECTS.
- 4. WOODCHIP MULCH: "ARBORIST CHIPS" (CHIPPED WOODY MATERIAL) APPROXIMATELY ONE TO THREE INCHES IN MAXIMUM DIMENSION (NOT SAWDUST). THIS MATERIAL IS COMMONLY AVAILABLE IN LARGE QUANTITIES FROM ARBORISTS OR TREE-PRUNING COMPANIES. MULCH SHALL NOT CONTAIN APPRECIABLE QUANTITIES OF GARBAGE, PLASTIC, METAL, SOIL, AND DIMENSIONAL LUMBER OR CONSTRUCTION/DEMOLITION DEBRIS.
- COMPOST: COMPOST SHALL MEET WSDOT STANDARDS SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION, 9-14.4(8) FOR FINE COMPOST.

CONTINGENCIES

IF THERE IS A SIGNIFICANT PROBLEM WITH THE RESTORATION AREAS MEETING PERFORMANCE STANDARDS, A CONTINGENCY PLAN WILL BE DEVELOPED AND IMPLEMENTED. CONTINGENCY PLANS CAN INCLUDE, BUT ARE NOT LIMITED TO: SOIL AMENDMENT, ADDITIONAL PLANT INSTALLATION, AND PLANT SUBSTITUTIONS OF TYPE, SIZE, QUANTITY, AND LOCATION.



A SPLIT RAIL FENCE

Scale: NTS

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Science & Design

MITIGATION PLAN DETAILS AND NOTES

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